UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,506	11/30/2001	David P. Burgess	SC11732TS	6521

23125	7590	05/04/2004

FREESCALE SEMICONDUCTOR, INC.
LAW DEPARTMENT
7700 WEST PARMER LANE MD:TX32/PL02
AUSTIN, TX 78729

EXAMINER
PATEL, NIMESH G

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/998,506	BURGESS, DAVID P.
	Examiner	**Art Unit**	
	Nimesh G Patel	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1, 7-10, 16, and 20_ is/are rejected.

7) ☒ Claim(s) _2-6, 11-15 and 17-19_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _30 November 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1, 7-10, 16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by

Stone et al.('785), hereinafter referred to as Stone.

3.   Regarding claim 1, Stone discloses a method for executing an interrupt in a data

processing system comprising the steps of: fetching a conditional store instruction that is

conditional upon a reservation(Write-if-Reserved instruction; Column 10, Lines 47-48) ;

receiving notice that an interrupt is pending in the data processing system; invalidating the

reservation in response to receiving the notice, wherein invalidating the reservation causes the

conditional store instruction to finish; and processing the interrupt(Column 10, Lines 48-52;

Column 15, Lines 34-36; The interrupt invalidates the reservation, the interrupt is processed,

and the conditional store is executed).

4.   Regarding claim 7, Stone discloses a method, wherein the data processing system has

one or more processors(Figure 1, 21).

5.   Regarding claim 8, Stone discloses a method, wherein the conditional store instruction is

an instruction that requires a corresponding reservation of a memory location, wherein the

corresponding reservation was established by a previously executed load and reserve

instruction(Column 9, Lines 54-56).

6.   Regarding claim 9, Stone discloses a method, wherein the step of setting a reservation

related to the conditional store instruction comprises setting an address and a valid bit in a

reservation register corresponding to a location in a memory for the conditional store instruction(Column 8, Lines 61-63; Column 9, Lines 3-6).

7.   Regarding claim 10, Stone discloses a data processing system, comprising: a processor for executing instructions(Figure 1, 21), the processor comprising: a memory unit(Figure 1, 24); an instruction dispatch unit for fetching, decoding, and issuing a conditional store instruction(Figure 1, 23; Column 9, Line 61, Write-If-Reserved instruction is issued); and a reservation register(Figure 1, 26) for storing a reservation corresponding to a location in the memory unit to be used as a target for the conditional store instruction(Column 6, Line 60-Column 7, Line 3), wherein in response to the data processing system receiving an interrupt, the reservation is cancelled(Column 15, Lines 34-36).

8.   Regarding claim 16, Stone discloses a data processing system comprising: a system bus(Figure 1, 20); a memory(Figure 1, 25) coupled to the system bus; a first processor(Figure 1, 21, in dotted lines), coupled to the system bus, for executing instructions, the first processor comprising: a first instruction dispatch unit for fetching, decoding, and issuing a first conditional store instruction(Figure 1, 23; Column 9, Line 61, Write-If-Reserved instruction is issued); and a first reservation register(Figure 1, 26) for storing a first reservation corresponding to a location in the memory to be used as a target for the first conditional store instruction(Column 6, Line 60-Column 7, Line 3), wherein in response to the first processor receiving an interrupt, the first reservation is cancelled(Column 15, Lines 34-36); and a second processor(Figure 1, 21, right side), coupled to the system bus, for executing instructions.

9.   Regarding claim 20, Stone discloses a data processing system, wherein the second processor further comprising(Column 8, Lines 43-44): a second instruction dispatch unit for fetching, decoding, and issuing a second conditional store instruction(Figure 1, 23; Column 9, Line 61, Write-If-Reserved instruction is issued); and a second reservation register(Figure 1, 26)

for storing a second reservation corresponding to a location in the memory to be used as a target for the second conditional store instruction(Column 6, Line 60-Column 7, Line 3), wherein in response to the second processor receiving an interrupt, the second reservation is cancelled(Column 15, Lines 34-36).

Allowable Subject Matter

10.   Claims 2-6, 11-15, and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art additionally discloses art related to reservations and interrupts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nimesh G Patel whose telephone number is 703-305-7583. The examiner can normally be reached on M-F, 8:30-6:00.
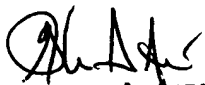
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nimesh G Patel
Examiner
Art Unit 2112

NP N P
April 28, 2004

Glenn A. Auve
Primary Patent Examiner
Technology Center 2100